U.S. Environmental Protection Agency Institutional Controls Tracking System
State and Tribal Focus Group
June 18 - 19, 2002
Washington, DC
Hall of States

Purpose

The purpose of this focus group was to gather the expertise of state and tribal governments on the subject of electronic tracking systems for institutional controls (ICs). The focus group also provided a forum for these experts to share their views on the challenges of IC tracking.

The participants are listed below:

Mike Bellot, U.S. Environmental Protection Agency (EPA)/Office of Emergency and Remedial Response (OERR)
Larry Zaragoza, EPA/OERR
Randy Hippen, EPA/OERR
Greg Jordan, EPA/Outreach and Special Project Staff (OSPS)
Carlos Lago, EPA/Office of Solid Waste (OSW)
John Stewart, U.S. Department of Energy (DOE)
Bob Cribbin, U.S. Army Corps of Engineers (USACE)
Lisa Gover, National Tribal Environmental Council (NTEC)
Joe Schilling, International City and County Management Association (ICMA)
Sean Tolliver, ICMA
Jason McMillen, ICMA
Kris Swanson, Association of State and Territorial Solid Waste Management Officials (ASTSWMO)
Mike Sowinski, DPRA
John DeFina, New Jersey Department of Environmental Protection
George Klein, New Jersey Department of Environmental Protection
Koon Tang, New York State Department of Environmental Conservation
John Swartwout, New York State Department of Environmental Conservation
Gary Behrns, Missouri Department of Natural Resources
Robert Stout, Missouri Department of Natural Resources
Kent Gray, Utah Department of Environmental Quality
Pat McCutcheon, Wisconsin Department of Natural Resources
Steve Johnson, Delaware Department of Natural Resources and Environmental Conservation
Roger Register, Florida Department of Environmental Protection
Greg Brown, Florida Department of Environmental Protection
Jim Perrine, California Department of Toxic Substances Control
Mike Sorenson, California Department of Toxic Substances Control
Maureen Findorff, Marasco-Newton Group (MNG)
Stephen Merrill Smith, DynCorp
Kristen Burke, DynCorp

Aditya Mane, DynCorp
Matthew Hayduk, DynCorp

EPA/OERR welcomed participants to the focus group and presented EPA's Institutional Control (IC) research, challenges, and proposed approach. The results of the data collection pilot demonstrating a need for more intergovernmental partnerships to better track ICs were part of this presentation.

EPA/OERR also discussed data entry pilots, focus groups, Fall IC tracking workshop, and national IC conference. This is one of seven focus group meetings on the subject of electronic tracking systems for ICs. A focus group for EPA headquarters staff was held on June 5, 2002. Future focus groups will be held for the following groups:

- Federal Agencies
- EPA Regions
- Industry Representatives
- Non-Governmental Organizations
- Local Governments

The focus groups are in preparation for an October 2002 IC Tracking Workshop. EPA/OERR is also planning to hold a national IC conference in 2003. EPA envisions a coordinated national effort among stakeholders to create an IC tracking network. This system will provide links to other tracking systems and mechanisms so as to enable information sharing. To create this network, EPA is using a collaborative development process. EPA's believes that this collaborative process will:

- leverage information from existing systems;
- provide an opportunity for data collection by organizations not currently tracking ICs;
- exchange methods for effective data sharing;
- share information on the minimum set of data elements required for tracking; and
- identify data stewards to support the formation of a network for data sharing.

BREAK FOR LUNCH

After lunch, EPA/OERR explained the objective of the focus group meeting. EPA/OERR sponsored focus group meetings and information requests to evaluate potential data categories for an IC tracking system. A matrix containing a list of potential data categories was developed. The group was asked to discuss these data categories and to identify what information about ICs is most important to their work as state regulators.

Next to each data category, the matrix indicates by color if the data category is tracked by state systems. As facilitator, Ms. Findorff explained the color key:

Color	Meaning
Green	A match between possible EPA data category and a data category that a state system is tracking
Light Orange	No match between a possible EPA data category and the data categories tracked by a state system; light orange data categories are also marked "not available" because they are not being tracked
Dark Orange	A data category tracked by a state system, but not listed in EPA's possible data categories
Teal	A data category tracked by state systems, but not on the EPA list of possible data categories because that data category is tracked by EPA in another system such as CERCLIS 3

The facilitator also explained that the matrix is divided into six sections that address different aspects of ICs that may need to be tracked:

- Appendix 1 involves site information data categories,
- Appendix 2 involves IC selection,
- Appendix 3 involves IC implementation,
- Appendix 4 involves IC monitoring and enforcement,
- Appendix 5 involves IC costs, and
- Appendix 6 involves GIS layers that may accompany IC information.

The facilitator said that she wanted to know what the participants thought of the information in those appendices. For instance, she suggested that the participants ask questions about what different data categories mean and to decide whether those categories are important enough to track

The group began the discussion in **Appendix 3**.

The data categories that the group thought were important enough to track were labeled "core". These data categories are marked with an asterisk.

<u>IC ID - Unique IC record identifier</u> *
It was explained that this unique identifier is to avoid double counting of ICs (i.e., when one IC covers multiple media). One participant said that their system has an expandable list of control class and categories. They allow for multiple controls per parcel or operable unit (OU) and can pull individual controls out in queries. Another participant said that New York does not track the media covered by an IC. They do track the contaminated media at a site so one can find out which media the IC should cover.

A participant from Missouri said that their Superfund Management and Registry System (SMARS) system is simple to promote usability. They started with a base, added minimal elements, and continue to add new elements as needed. Their system was patterned after the Delaware system.

A Utah participant said that their system currently files IC information without an electronic tracking system. He asked how to track a scenario where a residential area was cleaned up and each property had a description of the contamination that remained?

An answer was given that this is similar to a groundwater plume where one relies on a general geographic description of the contaminated area; if one has accurate geographical boundaries, one can use a Geographic Information System (GIS) web-based system to show the boundaries of the contaminated area needing control. An ICMA representative noted that this is similar to the Emeryville, California One Stop Shop system.

A Florida participant said that each state may be different. In Florida, each property owner has to agree to an IC before it can be implemented. Therefore, one have to look at property rights in each state. In Florida, the property owner has to agree to use IC instead of complete cleanup. Then the department agrees to the use of the IC. An IC can't be removed unless the department agrees to it.

The discussion was brought back to data categories.

New Jersey has two systems, one that is GIS based and flexible. New Jersey uses an IC ID that is the site ID. They can assign multiple media to each IC ID. The advantage to this is that it is easy to locate records and edit data quickly. All remedial sites in New Jersey will get an IC.

A DOE representative added that they have worked with many states on GIS systems. His advice was that if one is thinking of creating a new system, one should use existing systems as much as possible and not recreate systems.

In Wisconsin's system, everything at a site is tied to one ID. They currently track only groundwater and will start tracking soil this fall in a different layer. When asked about different properties, the Wisconsin participant said that he was not sure how that would be handled in their system. The information would still be tied to the source property, site name, and site ID with flags to show if contamination is on site or off site but all information would be tied back to the site ID.

One participant added that ICs can overlap and you can have large and small sites mixed together.

Another participant asked about query capabilities in relationship to IC ID. The New Jersey and Wisconsin systems would be able to give a number for the IC instruments in place.

A California participant related parcel ID to IC ID. He said that he is a GIS specialist by trade and has only been involved with the GIS aspect of the CA system. He added that a lot can be done with tracking through GIS but they are still building their system now. The existing systems have good data but they do not translate well into GIS. They are rewriting the application to deal with the situation. Some issues are that the lat/long data was incorrect (e.g., they pertained to potentially responsible party -- or PRP -- address, not site) and addresses were not always able to be geocoded. They are digitizing polygons now, while CALSITES tracks deed-restricted sites. There is some information on the web allowing users to search for sites by county or other fields. Approximately 162 parcels are identified that way currently.

The discussion proceeded to the second data category.

IC Called for by Decision Document *
This data category includes information on what decision document, if any, required an IC to be implemented.

A New York participant said that they take the Records of Decisions (RODs), convert them into Portable Document Format files (PDFs), index the files, and allow users to call up the file. They do not have a data element to indicate if the IC was called for in the ROD.

In Wisconsin, it was said, the use of ICs does not occur until closure of a site. They have not yet put Superfund sites in the system; currently the system contains state-lead sites, Voluntary Corrective Program (VCP) sites, and Underground Storage Tank (UST) sites. They would use closure documents indicating approval of the final remedy as the decision document. There are no RODs at the site types they have dealt with so far.

In New Jersey, they apply groundwater ICs at the end of the remedial process. ICs are in place for years. ICs are also well restricted areas. Now they implement ICs as soon as they identify a problem. The same type of process is used in Delaware.

One participant added that RODs often focus on engineered remedies. It is interesting to compare what was selected to what was actually implemented.

In New York, they had to call the county clerks to see if they had information on record to try to determine if IC was implemented. Now they have changed the process to make proof of IC implementation part of the construction phase. Sites are not accepted into the operation and maintenance (O&M) phase of cleanup until they provide a copy of the filed IC to show implementation.

Wisconsin said that in their system, ICs are not tracked in their system until they are implemented. They include a PDF file of the IC documentation (photos, construction documentation, well restriction). The well drilling community is supposed to access the system to see if well restrictions exist before they drill, but this does not happen.

Delaware asked about the use of the term "decision document" and how it relates to RODs, consent decrees (CDs) and the like. The response was that decision documents are RODs and similar state decision documents, not CDs and other enforcement documents. Delaware suggested that maybe an IC was not mentioned in the ROD but was added as a requirement in a CD. It was added that if ICs were selected in CDs but not in RODs, there would have been less opportunity for public comment on the IC.

An ICMA participant asked what decision documents are called in other programs. New York responded that a ROD is the decision document for Superfund, an approved work plan is the decision document for UST facilities, and different names are used for different programs.

ICMA asked about the decision document status of a no further action letter; can states issue no further action letters if ICs exist? New Jersey responded that they would have no further action letters that contained conditions to reflect that ICs exist at a site. A Florida participant said that their no further action letters relate to the ICs. Wisconsin said that they would not issue a no further action letter if ICs were required. A Missouri participant said that their SMARS system has a registry log and IC log so that they would know the type of document requiring the IC based on the type of site. If a site had ICs, the no further action memo would state that ICs are required.

The Missouri participant went on to say that their system was created before they were told what to track. They didn't look at making decisions based on data or creating reports, and he does not believe that so many data categories are necessary. There can be additional tweaking of data elements in the next phase, he added.

Participants were reminded that the appendices contain the universe of possible data categories - not what will be tracked.

Implementation Status *
This data category informs the user whether an IC has been implemented and, if so, the date of implementation.

The Wisconsin and Florida participants pointed out that ICs do not get entered until they have been implemented. Therefore, status is not an issue for them.

EPA intends that implementation status could also contain planned dates. To this, a New Jersey participant responded that they do not track planned dates because it is just another element to track.

A EPA consultant asked if states require proof of IC implementation once they get a no further action memo or once they get to the point of recording the IC. Wisconsin, Florida, and New Jersey said yes to this question. Wisconsin explained that they do require proof for soils but they will not be doing that once they switch to a web-based system. The web-based system will replace property record recording.

A New York participant said that every additional data category is another requirement for managers and if one asks for too many of these, the fear is that people will feel so burdened that they will stop using the system altogether. The response was that EPA understood this fear and that he was trying to determine the *minimum* number of data categories to track. Regarding whether implementation status was one of these categories that *should* be tracked, participants were asked when information was entered into their systems. For instance, is information entered as each IC is implemented or only after all ICs for a site are implemented? New Jersey and Florida responded that each IC is entered as it is implemented. Wisconsin said that all data are entered when the site is done but that may be changing. New Jersey said that to reduce exposure, ICs are entered as soon as they are implemented.

Another EPA participant asked if states are concerned about not implementing an IC that should have been implemented. New Jersey responded that they have pending groundwater zones (groundwater cautionary zones) to capture planned ICs that have not been implemented. Wisconsin said that they are aware of how many sites for which IC are not yet implemented -- 53% of all sites. Wisconsin said that it has a system whereby the state does not have to wait for property owners to file restrictions. Missouri added that sites are entered in SMARS as soon as they are discovered.

States were asked if they are using their systems as project management or reporting tools. The Missouri participant responded uses the system for both purposes because they want to be able to get information quickly and also use it as a tool for project management. New York tried to sell the system to managers as a project management tool but it is also good at reporting. They have monthly managers meetings to make sure the data are correct.

New Jersey said that there is an assumption that ICs are protective. However, New Jersey has shown that 25 to 40 percent are not protective, and they had to reopen cases that were closed. Therefore, it should be noted that – although more tracking is desirable – more tracking can cause more work.

Delaware said that not very many people want to know information across the state or a region but a lot of people want to know information at the local level for the public and community. One participant looked at the list and asked why we need so many elements. A EPA consultant explained that EPA had listed as many elements as it could brainstorm and that the purpose of this focus group was to reduce these many elements to a workable minimum number that makes sense for all the users and stakeholders.

The representative from Utah asked about unprotective ICs, saying that we need to audit ICs to determine effectiveness. Missouri added that ICs need to be managed properly to be effective.

An EPA representative said that those administering cleanup programs need to be able to answer some basic questions or people will assume that the remedies are not effective. The data categories are supposed to help answer questions, he explained.

Missouri said that he has dealt with ICs that were effective and appropriate in 1985; however, conditions have changed, and now they are not effective.

Duration
This data category details the life span of the IC.

New Jersey tracks duration based on a model and has seen about 12 ICs close out. The group mentioned some examples of temporary ICs - those related to pump and treat or natural attenuation. New York added that they thought that ICs related to pump and treat or natural attenuation were part of the remedy so they do not track those.

One participant suggested that tracking duration may help encourage redevelopment by showing that the ICs do not last forever.

Wisconsin said that they have natural attenuation, not monitored natural attenuation, for groundwater so they do not have temporary ICs.

A DOE participant asked if states have looked at how long ICs work or if they are subject to re-zoning. Florida does not rely on zoning because it changes and added that the only way for an IC to be removed is if there is proof that the IC is no longer needed. DOE suggested that sometimes property is transferred and the new owners do not know that ICs are on the property. However, Florida responded that there they changed the process so that on all maps, ICs are clearly shown.

New York does not track duration and that someone would need to petition the state with evidence if they want to remove an IC.

Implementation Party *
This data category identifies the party responsible for implementing an IC.

Wisconsin does track this field as the responsible party. New York said that since they know the type of control, they would know who implemented the IC but it is not tracked.

ICMA asked if there is a requirement to let the state know if the property owner changes. New York said that it is required there. The seller must let the state know who the new owner is and must tell the new owner about the restrictions.

USACE asked if there is a distinction between the party subject to ICs and the party enforcing the ICs. Can you distinguish the holder of the easement versus the person subject to the easement?

New York said that they can tell by the nature of the IC who is responsible for implementing the IC - so why do they need to track it? EPA/OERR said that from EPA's perspective, selected ICs include things that states, locals, PRPs, etc. can implement, and they want to know who is

responsible for implementing them. ICMA added that some communities may want to know who is responsible for ICs and who they can call with questions. Missouri said that states have a different perspective because they have a smaller scope. Some assumptions do not apply for a national system. EPA/OERR added that there may be state elements, EPA elements, local elements, and some overlap between.

Utah added that at the local government level, a mayor may accept an IC and as the mayor changes, the new mayor may not accept the IC.

BREAK

Implementation Issues
This data category explains issues concerning forthcoming or previous implementation so that ways of improving IC implementation can be identified.

New York has a comment field where people could fill in implementation issues. This field is mostly blank. New Jersey asked why you would want to track issues. EPA/OERR responded that in certain cases, issues keep reoccurring and they might be avoided if they were tracked.

Termination Status *
This data category contains information on when an IC was terminated. For ICs that are currently in effect the data category displays a termination date.

New Jersey said that their system tracks if an IC is lifted or closed. Wisconsin added that they probably would not remove an IC. Wisconsin tracks the date closed but they assume that ICs are permanent. In their GIS system, they would have a PDF file of the document that lifted the IC and have the date that the IC was lifted. New York added that they have a termination date for every IC and Florida also said that they have a field for this.

Termination Initiation Party
This data category identifies the party responsible for initiating IC termination.

Missouri said that they track dates and have a comment field. The termination party information may be in the comment field but it is not a separate data element. New Jersey added that they track the element as the responsible party - not as a separate field. In some cases, the responsible party may not be the termination party but responsible party is what is tracked.

Termination Approval Party *
The data category identifies the party responsible for approving IC termination.

Most states agreed that the state is the party approving the termination, so there is no need to track this element. EPA/OERR added that from EPA's perspective, it may not always be logical who the approval party is, so they would like to track it. ICMA offered the example that for

mining Superfund sites, one could have an overlay ordinance by a local government that might be terminated later.

Modification Information *
This data category displays changes or modifications to an implemented IC.

New York tracks control audit summary reports. Florida would terminate one IC and start a new IC if IC conditions changed. Missouri added that their system has not had to deal with modified ICs.

New Jersey said that they modify IC information including description, duration, and conditions all the time but they do not track the changes.

One participant asked if the public should be made aware of IC modifications. New Jersey responded that the system is available to the public to provide information. This allows for public notification but he was not sure if there was an opportunity for public comment. New Jersey asked if a listing of all changes should be kept.

Wisconsin asked if all property ownership changes should be tracked and added that Wisconsin is currently not notified of these changes. He added that they worked with realtors to get property ownership information so they could get updated information as needed.

New Jersey added that industrial use is different than residential use.

New York said that there is some new legislation in New York that would require an annual certification for any property with engineered remedies or ICs. If the department does not receive the certification, they could investigate the property and possibly find new owners.

IC Implementation Document *
This data category displays electronic images or web links including the IC Implementation Plan, IC instrument, articles, and other related documents

New Jersey said that it would be nice to have the documents but they do not currently have them in their system. Delaware said that they documents are in their system if you look for them. New York thought that tracking systems were supposed to take the necessary information from these documents so that one does not need to look through them. EPA/OERR added that it is nice to have links to the actual restrictive covenants or other controls. He described the Navy's LUCIS system, which has links to PDF documents. New Jersey said that they have too many documents to keep track of so it would not be practical to add them to their system. New Jersey added that it would be nice to have the documents available electronically. Wisconsin said that in their system, documents are required in order for an IC to be entered in the registry, so this field is totally populated. Wisconsin said that it is helpful to see exactly which areas have been restricted. If one has a lot of sites, server space problems arise because PDF files can be large.

Contacts *
This data category contains contact information for the person responsible for IC implementation. Contact information included title, address, phone number, and e-mail address.

The facilitator said that it is possible to get to this information for all states but they may not have a specific data element to track it.

ICMA said that one needs to think of the end user. If the public wants to know a contact, a separate data element would be useful so that the public does not have to try to figure out the correct contact person.

The facilitator asked if the public would have a hard time finding the contact information. Missouri responded that they have the project manager as the contact. Florida said that they provide the general number for the division. Similarly, New York said that they provide a general number for the regional office. It is too hard to keep track of specific names because they change too often. Wisconsin said that they track the contact but it is the contact at the time the decision was made so the information may change. Utah added that it is hard to keep track of contacts because they change frequently. EPA/OERR agreed and instructed the EPA consultant to delete the word "name" from the definition of Contacts.

The facilitator moved the group on to Appendix 4, Initial List of Possible IC Monitoring and Enforcement Data Categories.

Appendix 4

IC ID *
This data category functions as a unique IC record identifier.

IC Monitoring Requirements *
This data category indicates monitoring requirements for the IC including type of document or instrument requiring monitoring.

New Jersey tracks if a required state biannual certification of the IC has been completed. New York will track annual certifications once the legislation passes.

Missouri does track monitoring information. The EPA regional offices do annual inspections including photos and a report. The Site Assessment Committee meets once a year and reviews the reports and puts them in a file. The monitoring party is the regional office. One participant asked if the database is updated annually and if the information is put in the system when there is an inspection. Missouri clarified that monitoring results are not put in SMARS. The EPA regional office does not have access to SMARS.

New York said that their system has a field for certification but there is not a good set of guidance for monitoring ICs. New York asked if guidance will specify the frequency of

monitoring. EPA/OERR responded that they will suggest annual certifications with site-specific independent verification - maybe five-year review documents.

The facilitator made the observation that in Appendix 4, there is more green (meaning a match of data categories) for monitoring frequency and asked if this was because the states know who is doing the monitoring based on business practices.

Florida, Missouri, and New York responded yes to this question - based on the type of site they would know who did the monitoring. New York and New Jersey also keep track of who changed records for some fields so they can see who updated the information on monitoring.

What about if someone signs off on the monitoring done by the PRP? Missouri said that the EPA regional office signs off on monitoring in Missouri. New Jersey said that the responsible party does groundwater monitoring. New York said that for some types of engineering controls, an engineer needs to do the certification. For ICs, it has not been decided yet but probably just the property owner will need to do the certifications.

In Delaware, some things are tracked in narrative form as a site update. For example, there could be a narrative on a monitoring report that could be put in the site history and made available to the public. If someone is interested in just one site, the site history is very helpful. They have a different philosophy - they have not yet had a need to track monitoring information.

Monitoring Findings *
This data category displays findings related to monitoring of the IC.

The Missouri participant was not sure if this information was tracked. Wisconsin said that there is no monitoring once the IC is in place.

The group talked about business processes for data entry. Florida reported that for their system, people submit data to a data entry person to be entered in the database. In New Jersey, the data entry is spread out but it is mostly done by the case managers. Missouri's case managers do data entry in their system. The Wisconsin participant added that in Wisconsin, each state region has a data entry person. In New York and Delaware, data entry is mostly done by the project manager.

Regarding linking to local systems, the group learned that New Jersey has a GIS component that is available to local agencies. Missouri reported a link between SMARS and the financial accounting system to verify numbers and pull out oversight costs. Utah said that the state gives lists to local agencies but they do not have an electronic system. EPA/OERR asked if there would be a cost savings in automating things in an electronic system. Utah responded that the answer was yes, but that it was just a question of timing.

BREAK

After the break, the facilitator began the state roundtable discussion.

State Roundtable on IC Tracking

A New Jersey participant began the discussion by stating that one needs to be careful about additional data elements to IC tracking systems. One must weigh the usefulness of them, he cautioned. Too many elements can be overwhelming. One may not be able to answer every question, but there is less data entry/data maintenance burden.

The Utah participant said that he came to the meeting after having discussions of ICs with members of the Association of State and Territorial Solid Waste Management Officials (ASTSWMO). As a result of these discussions, he felt the need to bring up some policy questions:

- Should we be using ICs?
- Do ICs work?
- Because ICs are hard to maintain, would it not be better to do a full cleanup?
- Have we been using ICs too much to accelerate cleanup?
- Is it just too hard to keep ICs in place forever?

The Missouri participant gave some reasons why a lot of ICs do not work:

- It is difficult to look in the crystal ball and project future land use;
- ICs fail - conditions change, technical perspective; and
- ICs are not protective of human health over time.

The Missouri participant said that because of stress on state funding needs, ICs are being used more. And they are being used more because ICs were seen as being cheaper. However, ICs are starting to be seen as more expensive in the long run.

A New Jersey participant said that he appreciates the comments about the disadvantages of ICs but he feels that ICs are dynamic and they need to change over time. For instance, he said that in New Jersey, ICs were viewed as part of the final remedial action but now they use ICs are part of ongoing investigations and remedial actions. Once cleanup officials identify the extent of groundwater contamination, they want to limit use. New Jersey said that it is critical to track ICs or one sets oneself up for future problems with conflicting use. New Jersey uses interactive mapping to provide information to the public. This fulfills part of the need to restrict access to limit exposure.

Missouri agreed that there is some level of correct use of ICs, but that ICs have been used too much. Missouri said ICs are often expected to be part of a remedy even if their use is not the best choice.

A Delaware participant asked about a site with an IC that appears in a subsequent document to the ROD so that there was no public comment on the IC. This type of situation, he said, raises some questions:

- Did the decision to add the IC take into account the cost?
- Does the IC really add protectiveness?
- Was the IC added just for appearances?

Delaware suggested that there be reduced use of ICs because they are not always useful and may not add protectiveness, regardless of tracking. Delaware also cautioned about tracking too many data elements.

EPA/OERR replied that EPA does not want to track too many data elements; EPA does not want to track data that no one will use. But, EPA/OERR added that if EPA does not automatically track enough data to respond to questions, EPA will need to do manual data collection which takes time and money. EPA/OERR said that EPA needs information to respond to questions. EPA/OERR agreed with the participant that pointed out the unknown nature of IC costs and said that some people may argue that ICs are better than full cleanup without knowing IC life cycle costs. EPA cannot respond to this because it does not have cost information.

Missouri brought up the thought that we are borrowing the country from our grandchildren and one needs to think about the long term good. Missouri faulted the philosophy that leaves contamination in place and restricts access to control exposure. New Jersey emphasized that one must think of their stewardship responsibilities and how ICs eat away at that. One needs to balance future use versus the cost of cleanup.

Utah said that in the West, the groundwater belongs to the state.

California uses ICs greatly and they have the same stewardship type concerns.

Florida said that it is a legislative issue. As a public employee, they have to follow the law.

New York said that ICs will be used in every state to some degree so there will be a need to track them. For EPA's system, New York suggests that it be built in phases beginning with the most important parts and getting "buy in" before expanding. In New York, integration is a big topic - trying to integrate state programs like air, water, and solid waste. When looking at the list of data categories, New York feels that some of the categories must be tracked by some other state systems.

The National Tribal Environmental Council (NTEC) advised the group that there are 21 National Priority List (NPL) sites in reservation boundaries. Of the 582 tribes in the U.S., 180 have Superfund sites within 14 miles of tribal lands. The tribes view ICs as ineffective, and they are disregarded. There are 497 NPL sites within 50 miles of reservations. Tribes are trustees, just as states are. Tribes also could fill other roles such as PRP, landowner, or land buyer. Tribes will not be responsible for maintaining their database – they will rely on EPA and the U.S. Department of the Interior (DOI). NTEC said that EPA should add data elements indicating if a site is on tribal lands, within 15 miles of trust land. NTEC asked EPA to indicate a category for

the presence of federal facilities, too. Several participants in the focus group agreed that this was a good idea.

At this point, The facilitator pronounced that the focus group was concluded for the day and reminded participants of the agenda for day two.

Second Day

The facilitator and EPA/OERR explained the agenda for the day and the group immediately took up the subject of the data categories that remained to be discussed before the State Roundtable on ICs.

CERCLA Five-Year Review *
This data category provides Five-Year Review information of sites addressed under CERCLA.

The participants varied in accounting for CERCLA five-year review information. Delaware captures some of this information in a narrative field. Missouri captures it in an O&M record containing information on annual site manager reviews. EPA/OERR clarified that EPA is interested in Five-Year reviews or equivalent independent reviews. New Jersey and Wisconsin do not track this information. Utah keeps lists of sites, and citizens demand annual reviews of ICs. New York said that there is a self-certification process in New York. Also, the participant from New York said O&M work and reporting occurs quarterly on engineered remedies. There is a 12- to 18-month review by site managers including a site visit and report if a site had an IC in combination with an engineered remedy. A summary page from the report goes into the tracking system. New York clarified that if a site only had ICs, it would not have regular site visits but would be audited less frequently. In Florida, there is usually an annual or two- to three-year cycle for review of ICs

NTEC asked who is responsible for Five-Year reviews. EPA/OERR responded that at Fund-lead and PRP-lead sites, EPA does the review; at state-lead sites, the state does the review and EPA concurs; federal facility and tribal sites are similar to state-lead sites.

Utah said that Five-Year reviews are a big deal in EPA Region 8. State and tribal comments are addendums to Five-Year reviews.

Notification Provisions for IC Breaches
This data category indicates the notification procedures in the event that an IC is breached.

New York said that they do not have a notification procedure; however, their system does have a comment field where someone could record information about a breach. EPA/OERR clarified the data category by stating that it is meant to ask if the tracking system is being used to list violations. New York answered that the plan is to generate reports of sites that are late on inspections, which could trigger audits. New Jersey said that they are working on developing an audit filing and notification system.

IC Breach Incident Report *
This data category displays breach incident information including a description of how the IC was breached and the date the incident was reported.

New York tracks why controls have not been certified. Missouri said that this information is probably in a text field. EPA/OERR explained that EPA would like to provide a report for breaches showing what was breached and what the response was.

Land Use Change & Exposure Scenario Changes *
This data category documents any on-site or off-site land use changes.

Missouri tracks land use changes in the site description text field.

Utah asked what land use change means – is it re-zoning or any change to land use? EPA/OERR responded that under the authority that implements the remedy, some state registers require notification of land use changes. In Missouri if a site is on the register, there is a requirement to notify the state of land use changes and they approve it. This change is then captured in the site description text field. Wisconsin said that notification is required as part of IC in Wisconsin but it is not captured in their system. New York said that for sites on the hazardous waste registry in New York, the department is notified of any change in use of the site but this is open to interpretation. The only way to know if a non-registry site has changed is through the annual certification. New Jersey said that this is a big issue because if you do not know about land use changes, it could have impacts on the remedy and its effectiveness.

Florida asked if local governments are notified of ICs in New Jersey. New Jersey said that they do notify local governments on maps. This could help make local governments aware of permitted land uses in certain areas.

A EPA consultant added that the intent of notification is for environmental agencies to be aware of land use changes and be able to determine the impact of those changes on remedies. The consultant clarified that a land use change is determined by local governments and suggested that if there were triggers for a local government to learn about a land use change, the local government could notify the state government. Then, the state could notify the federal government.

In Missouri, land use changes are very strict so that if one moves anything on the property, it is considered a land use change for sites on the hazardous waste registry.

EPA/OERR added that local land use can get tricky with things like cumulative zoning.

Missouri said that their system involves many laws (VCP, hazardous waste registry, etc.) and they each need different fields; Missouri finds it easier to use text fields so that each program can use the fields as they see fit. Delaware added that if a land use change issue was significant, it could be entered in a text field.

New Jersey asked if an IC breach is intentional removal of ICs or developing a property when it is not allowed? EPA/OERR replied that the intentional angle was not the initial intent, but that it was a good point to consider. Florida asked if it would be better to look at changes in exposure

scenarios instead of land use changes. EPA/OERR agreed that this might be a better perspective.

Regarding land use change information, a EPA consultant emphasized that this data category gets to the heart of the question of whether ICs are reliable. There are three processes to capture changes in exposure at the local level: the American Society for Testing and Materials (ASTM) Phase 1 environmental site assessment, one-call (before you dig) systems, and the local building permit process. The consultant pointed out that state and federal governments should tie into these processes to be aware of risks.

New Jersey agreed but said that there is some tension at the local level if restrictions are perceived to hinder economic development. New York said that there are thousands of land transactions at the local level so it would be difficult to process all of the information to get to changes of interest. In Wisconsin, an element of their GIS system is tied into the one-call system but the disadvantage is over notification so people tend to minimize one-call contacts.

New Jersey asked why states are responsible for tracking land use changes when the PRP or someone else put the IC on the property; the PRP/other party should need to monitor land use changes and notify the state. New Jersey asked for a clarification of one-call systems and how they relate to ICs. EPA/OERR responded with some examples.

Enforcing Party *
This data category identifies the party responsible for enforcing the IC.

New Jersey captures this information. The facilitator asked if other states do not track this because they know who it is by the type of IC. Wisconsin agreed that they know the enforcing party by the type of IC. EPA/OERR asked if states track grantees or grantors for easements.

Enforcement Authority *
This data category identifies the legal enforcement authority for the IC.

The facilitator asked if this was self evident based on the type of IC. Most agreed that it was. New York added that restrictive covenants are enforced by the attorney general.

IC Related Enforcement Action *
This data category indicates whether there has been an enforcement action related to the IC and the date of the enforcement action.

New York tracks the date that the case is referred to enforcement. Wisconsin said that they would have the date in the tracking system if there was formal enforcement. New York tracks a date for internal enforcement and if the case goes to court, it would be turned over to the attorney general's office. Because New Jersey does not know of breaches, they do not know of enforcement. New Jersey added that if a case was referred to enforcement, it would be tracked in the enforcement system. EPA/OERR said that enforcement is controversial because attorneys do not want information tracked or available and it is hard to get base information and determine how often ICs do not work.

Florida has an enforcement tracking database. Delaware said that the issue has not come up in their state. Utah explained that they are a small state so they keep lists and stay informed that way.

IC Related Enforcement Action Resolution
This data category indicates whether the enforcement action related to the IC has been resolved and documents the manner in which it was resolved.

IC Damages/Penalties *
This data category displays information about damages or penalties -- stipulated or statutory.

Some states have this type of information in enforcement systems (New Jersey, New York, Wisconsin, and Florida). Missouri said that this information could be entered in a text field. Utah added that enforcement is political. A New York participant said that a lot of information related to enforcement is tracked within the agency. Data integration could allow data exchange between systems. New Jersey said that if an action occurs at a property that the department is not aware of, it could be beneficial to make the information available to the public.

Contacts *
This data category contains contact information for the person responsible for monitoring and enforcing the IC. Contact information includes title, address, phone number, and e-mail address.

New Jersey tracks contacts. Wisconsin also tracks contacts but it is a snapshot in time so the contacts could be out dated. New Jersey's contacts are also a snapshot and are not updated as conditions change. New York uses agency contacts for enforcement and site managers for O&M. The Missouri system tracks the section who owns the record and that only that section can edit the data.

EPA/OERR explained that EPA is thinking of having contacts for local governments. For zoning ICs, it would link to the zoning office. For easements, it would link to the grantees. Wisconsin felt that it would be difficult to maintain these contacts if you used actual names of people. EPA/OERR responded that the information could be fed from a local office.

Wisconsin also tracks the department who owns the record as Missouri does. New York tracks the office with the lead on a project. EPA/OERR asked if any of the systems deal with multiple agencies. Wisconsin responded that their system deals with Department of Natural Resources (DNR) and Commerce.

The facilitator moved the group on to Appendix 5.

Appendix 5

The facilitator asked if any states track cost information. The Missouri system links to the financial system for cost recovery. Missouri tracks the monitoring fee for VCP sites. Wisconsin tracks the fee for putting an IC on a site (one-time IC placement fee). For a site to go on the register, Wisconsin must pay the fee.

One participant said that if a responsible party can use an IC to prevent spending more money on full cleanup, there should be a fee for administration of the IC (register, monitor, enforce, etc.). The responsible party should be charged the amount that it costs the state to maintain the IC.

The facilitator summarized that Missouri and Wisconsin track the fee to participate in the registry. For Missouri, this is the monitoring fee for VCP sites.

Wisconsin added that for VCP sites with groundwater issues, a private insurance bond is needed, but Wisconsin was not sure if the bond information was in the system.

Utah brought up a policy point that IC costs are extremely underestimated. When ICs are implemented, the full costs (tracking, monitoring, etc.) are not considered. ICs may be cheaper for PRPs but they are not cheaper overall. EPA/OERR added that this is why cost guidance is hard to develop because they cannot find cost information. In Utah, the government is cutting the general fund, which is the fund to cover ICs. Utah suggested maybe setting up a fee to cover IC costs.

New Jersey has a processing fee to cover the paperwork for VCP sites. New Jersey added that there are 5 to six remedial programs each with their own fees, but there is no specific fee for monitoring or oversight of ICs. New Jersey suggested that they may be able to estimate internal costs by looking at time sheets to determine how much time is spent on closed cases. One cannot argue that ICs cost more because the data do not exist to support that.

Utah said that the next time ICs are being considered at a site, the cost issue will be brought up. EPA/OERR said that EPA would like to ask for projected life cycle costs for ICs when the remedy is being considered.

BREAK

After the break, some people had some general comments about the EPA tracking system and how it would relate to other systems. The facilitator explained that the IC network/portal is still at the concept phase. New Jersey pointed out that the network would benefit EPA. EPA/OERR added that states should be comfortable with any shared data. New York said that the states could benefit by getting data from EPA. The facilitator also added that states would be able to see what other states are doing and learn from them. New Jersey said that the data need to flow down to the local level too.

EPA/OERR read a list of question related to strategic planning and agreed to email the questions to the participants and people can respond. EPA is looking for reactions on the basic issue of how EPA works with states. Utah responded that he sees money as the biggest challenge and added that when people talk about partnerships, they need to talk about equal partnerships. Utah sees the relationship between EPA's headquarters and its regions as an issue. New Jersey added that sometimes views are not translated from EPA headquarters to the EPA regions and to the states. EPA/OERR added that EPA has a plan for addressing IC issues. Missouri agreed with Utah that money is the big issue and said that there are 25 to 28 small states that are dependent on money for all programs because they do not have strong state laws and it is difficult to get things through the legislation. Missouri added that sometimes the autonomy of project managers can be difficult to deal with. EPA/OERR said that he appreciates the honesty and raising of issues. Missouri added that states are partners, not stakeholders. EPA/OERR explained that the email will go out this week and comments are requested as soon as possible. Florida asked if the questions should be distributed within their agency and EPA/OERR responded yes. NTEC asked if these questions are related to a meeting next week on the state of the environment. EPA/OERR explained that they were separate efforts. The facilitator added that the state of the environment effort involves environmental indicators and the EPA Administrator's goals for more understandable measures. NTEC asked if everything went together. EPA/OERR said yes that they were related: the questions are related to the overall vision and the meeting is more focused. NTEC asked about next steps. EPA/OERR responded that he would like feedback for an Agency meeting on July 17, 2002. New Jersey added that the issue of money is not just an issue for small states.

The group began discussing selected data categories from Appendix 2.

Appendix 2

IC Objective *
This data category identifies the objective of the IC (e.g., prohibit use of ground water).

EPA/OERR clarified the category by asking if the specific use limitations are clear in the system. The facilitator asked if they are tracking allowed uses or limitations. Limitations are not clear in the New Jersey system, but the outcome of the system includes lists of areas where groundwater use is not allowed. Wisconsin said that the IC goals are in the Wisconsin system. New York said that up until recently, the RODs were very vague. Now RODs are more specific and may even state the type of IC and goal of the IC. One needs to know the goal of the IC to determine its effectiveness, but this is not tracked in the New York system.

Anticipated Future Land Use *
This data category identifies the type of future land use that IC implementation may accommodate.

Wisconsin said that their system does not track changes in land use. They do track if the use is residential or industrial. New Jersey tracks if the use is restricted or unrestricted. New Jersey

does not anticipate future land use. Unrestricted use is used as long as that unrestricted use does not conflict with the remedy. New Jersey asked about changes in property ownership.

New York tracks current land use but it is a site-specific field and does not describe surrounding properties. He was asked to add anticipated future land use for the site as a field. New York said that remedies are designed for anticipated future land use. Florida said that their system is similar to New Jersey. Florida does not track use; they track if activities are limited on the site.

IC Area *
This data category identifies the area to which the IC is applied.

The facilitator summarized that New York tracks the lot and block and Missouri tracks the area. Missouri tracks the latitude/longitudes and number of acres. EPA/OERR asked if they track polygon data. Missouri responded that they are just setting the system up and they are working on polygons. New Jersey tracks acreage. Wisconsin has a map and a copy of the deed that the IC applies to showing site boundaries. A EPA consultant added that the area of concern could be less than the site boundary. Wisconsin also has PDF files of areas of concern. New Jersey has GIS maps of compromised area (both on and off site). Florida said that they just have points for now but they are working on boundary information. Delaware uses tax parcel numbers and they overlay tax parcel maps with site boundaries.

The group then spoke in general about GIS systems.

The facilitator asked how the states started their GIS systems and how they maintain them. New Jersey responded that it is part of the business process in New Jersey. They want to know boundaries. New Jersey adapted the process to require responsible parties to submit digital data (soil, groundwater ICs, property boundaries, soil excavation maps). They are modifying the process to enhance things. They issued guidance on the data needed and acceptable formats and meta data. Meta data are critical to defend cases in court. Some maps were manually digitized. New Jersey also goes out and gives training to the regulated community. New Jersey added that chemical data come in GIS format also. New Jersey encourages all groundwater sites to get ICs as soon as possible and the State expects the remedial process to continue after ICs are in place.

New York's business process calls for geocoding of the site centroid. The State is working on a system to gather electronic data and use existing systems.

New Jersey added that one needs to have good data layers (streets, water bodies) to really make GIS useful.

EPA/OERR spoke about the EPA Office of Environmental Information (OEI) Environmental Data Registry (EDR), explaining that the EDR is a system that describes data. One can register one's data and add definitions and try to find common definitions. If data sharing takes place, it is important to have common definitions. The EDR was created for the EPA/state partnership and it is still growing. The facility identification information is probably closest to the type of information that the focus group has been talking about. OEI prepared a presentation for the

focus group but the group did not feel there would be time to fit it in. For states without systems, the EDR can be helpful for system development.

One participant asked how they can register their data. The facilitator suggested contacting Linda Spencer at OEI about registration. New York also asked about extensible markup language (XML). The facilitator explained that if IC data standards are developed, an XML schema and tags will need to be developed. New Jersey asked if OEI can handle an influx of system information. The facilitator thought that they could.

EPA/OERR closed the meeting by saying that he learned a lot from the states and felt that the meeting was very worthwhile. He will provide participants with a meeting summary, updated matrix, and a state specific matrix. The next focus group will be with the regions and he welcomed some states to attend the meeting. He also said that the IC survey will be distributed to all participants and mentioned that if any states are interested in working on data pilots to let him know. He is looking for cosponsors for the October conference. He encouraged all participants to spread the word about EPA's system and suggested maybe having a follow-up meeting.

New Jersey said that ICs have their place and they evolved from environmental indicators. New Jersey is working on a comprehensive inventory of environmental stresses to determine how serious the problem is. ICMA said that they are working to bridge the gap of information sharing at all levels and suggested that people visit the web site (www.lucs.org). Utah thanked EPA/OERR for inviting the ASTSWMO T3 representatives and other states and said that the meeting felt like a partnership. An EPA consultant added that he is still taking comments on the concept paper that was handed out at the start of the meeting.

After discussing broader policy issues, the focus group adjourned.